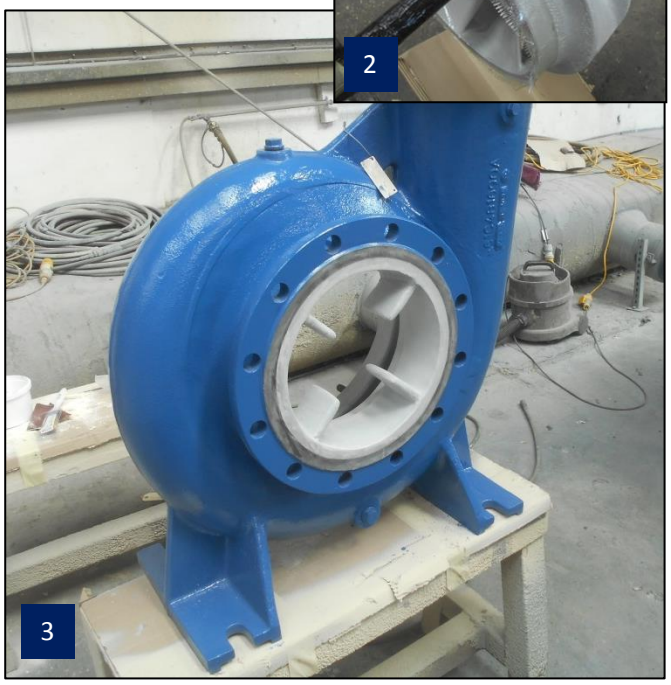
REFURBISHENT , AND PROTECTION OF RAW WATER PUMP

CORROSERVE
CASE STUDY



1: Pump on arrival. 2: Impeller during the coating process. 3: Completed pump casing reassembled after coating, before impeller re-fitted.

250/400 Centrifugal Pump

A raw water pump in service at a combined cycle gas turbine (CCGT) power station required a programme of refurbishment and corrosion protection, in order to prolong its service life.

The pump was stripped down and both the casing and impeller were abrasive blasted to the required cleanliness standards, before the casing was pre-machined to accommodate the coating process.

Plasmet HTE was then applied to all internals, 2mm on the casing and 1.5mm of the impeller. Theses items were thickness and spark tested to 27Kv and 17KV respectively to check for holidays.

Plasmet HTE is ideal for areas requiring abrasion (and chemical) resistance. This material has been used in cyclones, chemical process vessels, sugar beet pulping drums etc. It is also useful for building up damaged areas of pump impellers and casings where impact or abrasion, are prevalent.

During the refurbishment process bearing and gasket seals were replaced and the impeller was dynamically balanced before the pump was reassembled for dispatch and re-installation fully protected against corrosive seawater.

Industry	CCGT power station
Environment	Raw water
Plant Coated	Centrifugal pump
Preparation	Sa2½, 50µm
Coating	Plasmet HTE, Plasmet ZF
Application	Brush
DFT	Casing: 2mm, Impeller: 1.25mm
QA	Thickness & spark testing